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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/590,143	TSUKAMOTO ET AL.
	Examiner	Art Unit
	CHAU NGUYEN	2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 August 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-80 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20,22-68 and 70-80 is/are rejected.
 7) Claim(s) 21 and 69 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 21 August 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/21/06; 12/04/06 & 05/12/08</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-80 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "on the basis of editing information specific to said document" in lines 4-5 and "the original state on the basis of said editing information" in lines 13-14. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-27 and 30-75 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-24:

Claim 1: In summary, Claim 1 recites a document processing "method" comprising steps that may be performed manually and/or mentally. Thus, the recited

method is not tied to a particular machine or apparatus. Additionally, none of the recited steps transform a particular article into a different state or thing.

Accordingly, the recited method is nonstatutory subject matter.

Claims 2-23 fail to further define the recited method as statutory subject matter.

Claims 25-27 and 30:

Claim 25: In summary, Claim 25 recites a document processing "system" comprising means plus functions, which are software. Accordingly, the recited "system" is computer software per se and is not a "process," a "machine," a "manufacture" or a "composition of matter," as defined in 35 U.S.C. 101.

Claims 26-27 and 30 merely further define additional means plus functions. Thus, Claims 26-27 and 30 fail to recite statutory subject matter.

Claims 31-44:

Claim 31: In summary, Claim 31 recites a document processing "method" comprising steps that may be performed manually and/or mentally. Thus, the recited method is not tied to a particular machine or apparatus. Additionally, none of the recited steps transform a particular article into a different state or thing.

Accordingly, the recited method is nonstatutory subject matter.

Claims 32-44 fail to further define the recited method as statutory subject matter.

Claims 45-48 and 73-75:

Claims 45 and 73: In summary, Claims 45 and 73 recite a document creation "device" comprising means plus functions, which are software. Accordingly, the recited "device" is computer software per se and is not a "process," a "machine," a "manufacture" or a "composition of matter," as defined in 35 U.S.C. 101.

Claims 46-48 and 74-75 merely further define additional means plus functions. Thus, Claims 46-48 and 74-75 fail to recite statutory subject matter.

Claims 49-72:

Claim 49: In summary, Claim 49 recites a document editing "method" comprising steps that may be performed manually and/or mentally. Thus, the recited method is not tied to a particular machine or apparatus. Additionally, none of the recited steps transform a particular article into a different state or thing.

Accordingly, the recited method is nonstatutory subject matter.

Claims 50-72 fail to further define the recited method as statutory subject matter.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 77-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 77-80 rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. These claims are omnibus type claims.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirai , US Patent Application Publication No. US 2002/0083324.

12. As to independent claims 1, 25, 31, 45, 49, 73 and 77, Hirai discloses a document processing method for processing a document, comprising:

a document creation step of creating said document (page 2, paragraph [0018] and page 5, paragraph [0076]: a content creator conducts the creation of the content, which can be images, music document and/or programs); and

a document editing step of editing said document on the basis of editing information specific to said document (page 2, paragraph [0022] and page 3, paragraph [0037]: embedding information or digital watermark into the content, the digital watermark can be reconstructed, and the digital watermark or the information for

reconstructing the digital watermark embedded into the content may be managed in correspondence with identification information unique to the content),

wherein said document creation step includes an original creation step that creates an original of said document (page 7, paragraphs [0099]-[0101]: a different copyright from the original content is generated), and an embedding step that embeds said editing information in said document (page 2, paragraph [0022] and page 3, paragraph [0037]: embedding information or digital watermark into the content), and

wherein said document editing step includes an extraction step that extracts the editing information embedded in said document (page 3, paragraph [0029]: a removing unit operable to remove the digital watermark from the content), and a modifying step that modifies said document from the original state on the basis of said editing information (page 2, paragraphs [0022]-[0023]: reconstructing the digital watermark).

13. As to dependent claims 2, 26, 32, 46, 50, 74 and 78, Hirai discloses wherein said embedding step is a step in which encoded data obtained by encoding said editing information is embedded in said document by means of electronic watermark (page 3, paragraph [0031]: the embedded digital watermark may be encrypted).

14. As to dependent claims 4, 34 and 52, Hirai discloses wherein said editing information includes decorative information that is required in order to decorate a specified region in said document, and said modifying step includes a decorating step that decorates the specified region in said document on the basis of said decorative

information (page 3, paragraph [0038]: the information for reconstructing the digital watermark include at least one of information indicating a basic pattern selected for embedding the digital watermark, modification information, and shifting information).

15. As to dependent claims 9, 29, and 57, Hirai discloses wherein said decorating step decorates the specified region by overwriting the specified region with an overwriting pattern (page 3, paragraph [0028]).

16. As to dependent claims 10, 30 and 58, Hirai discloses a registration step of registering said overwriting pattern beforehand (page 4, paragraph [0056] and page 6, paragraph [0084]).

17. As to dependent claims 11, 37, 59 and 80, Hirai discloses wherein said editing information includes replacement information that is required in order to replace the specified region of said documents with the replacement pattern, and said modifying step replaces the specified region of said document with said replacement pattern on the basis of said replacement information (page 3, paragraph [0028]).

18. As to dependent claims 13, 39 and 61-62, Hirai discloses wherein said replacement information includes said replacement pattern (page 6, paragraphs [0081], [0083] and [0087]).

19. As to dependent claims 14 and 40, Hirai discloses wherein said replacement information includes information that designates said replacement pattern (page 6, paragraphs [0081], [0083] and [0087]).

20. As to dependent claims 15 and 63, Hirai discloses further comprising means for registering said replacement pattern beforehand (page 10, paragraph [0151]).

21. As to dependent claims 16, 41 and 64, Hirai discloses wherein said editing information includes retouched-part information required in order to detect a retouched part added to said document, and said modifying step erases said retouched part added to said document on the basis of said retouched-part information (page 7, paragraph [0107]).

22. As to dependent claims 19, 44 and 67, Hirai discloses wherein said retouched-part information includes a number of signals embedded in said document (Abstract).

23. As to dependent claims 23 and 71, Hirai discloses a step of removing said editing information from said document following said modifying step (page 3, paragraph [0029]).

24. As to dependent claims 24 and 72, Hirai discloses further comprising a re-embedding step of updating said editing information so as to reflect a result of the

editing performed by said modifying step, and then embedding the updated editing information in said document following said modifying step (page 4, paragraphs [0053]-[0055]).

25. As to dependent claim 48, Hirai discloses wherein said device includes a personal computer (paragraph [0058]).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

27. Claims 3, 27, 33, 47, 51, 75 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 above, and further in view of Jam et al. (Jam), US Patent No. 6,892,947.

28. As to dependent claims 3, 27, 33, 47, 51, 75 and 79, Hirai, however, does not explicitly disclose wherein said embedding step is a step in which encoded data obtained by encoding said editing information is embedded in said document by means of bar code.

Jam discloses accessing a composite image comprising a disguised barcode image incapable of being directly read from a base image by a barcode reader, extracting data corresponding to the barcode image from the composite image, and modifying the data to provide the barcode image in a state wherein the barcode image may be directly read by a barcode reader (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Jam with Hirai to include encoded data obtained by encoding said editing information is embedded in said document by means of bar code. Jam suggests modifying the barcode is to provide the barcode image in a state wherein the barcode image may be read by a barcode reader.

29. Claims 5-6, 12, 28, 35-36, 38, 53-54, 60 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 above, and further in view of Sayuda et al. (Sayuda), US Patent Application Publication No. 2003/0229857.

30. As to dependent claims 5, 35 and 53, Hirai, however, does not explicitly disclose wherein said decorative information includes information which indicates whether or not decoration is to be performed.

Sayuda discloses embedding additional information in document data in which layout and position of en element have been defined and provided (page 2, paragraph

[0020]). Sayuda further discloses the embedded additional information includes the setting information or region information (decorative information) indicating the region which is represented by coordinates where the element rendered at the rendering section should be attached to the additional information or reference information (page 4, paragraphs [0042]-[0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sayuda with Hirai to include decorative information includes information which indicates whether or not decoration is to be performed for the purpose of providing exact position or location of the embedded additional information in the document data.

31. As to dependent claims 6, 36 and 54, Hirai, however, does not explicitly disclose wherein said decorative information includes coordinate information indicating said specified region.

Sayuda discloses embedding additional information in document data in which layout and position of en element have been defined and provided (page 2, paragraph [0020]). Sayuda further discloses the embedded additional information includes the setting information or region information (decorative information) indicating the region which is represented by coordinates where the element rendered at the rendering section should be attached to the additional information or reference information (page 4, paragraphs [0042]-[0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sayuda with Hirai to include decorative information including coordinate information indicating said specified region for the purpose of providing exact position or location of the embedded additional information in the document data.

32. As to dependent claims 12, 38 and 60, Hirai, however, does not disclose wherein said replacement information includes coordinate information that indicates said specified region.

Sayuda discloses embedding additional information in document data in which layout and position of an element have been defined and provided (page 2, paragraph [0020]). Sayuda further discloses the embedded additional information includes the setting information or region information (decorative information) indicating the region which is represented by coordinates where the element rendered at the rendering section should be attached to the additional information or reference information (page 4, paragraphs [0042]-[0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sayuda with Hirai to include the replacement including coordinate information indicating said specified region for the purpose of providing exact position or location of the embedded additional information in the document data.

33. As to dependent claims 28 and 76, Hirai, however, does not explicitly disclose wherein said system includes any one of an electronic copying machine, a scanner device and a facsimile device.

Sayuda discloses a user can select a preferred embedded object image included in the print and have it scanned optically a scanner or the like (paragraph [0053]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sayuda with Hirai to include said system includes a scanner device for the purpose of reading the embedded object image.

34. Claims 7-8, 20, 55-56 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 above, and further in view of Perry, US Patent Application Publication No. 2006/0028689.

35. As to dependent claims 7 and 55, Hirai, however, does not explicitly wherein said decorating step decorates the specified region of said document with a designated color.

In the same field of endeavor, Perry discloses embedding code signal to a digital image of a document by inserting a tag in the embedded code signal such as a background tint or halftone watermark signal (page 7, paragraph [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Perry with Hirai to include decorates the specified region of said document with a designated color for the purpose of detecting alteration of the document.

36. As to dependent claims 8 and 56, Hirai, however, does not explicitly disclose wherein said decorating step decorates the specified region by half-tone dot meshing.

In the same field of endeavor, Perry discloses embedding code signal to a digital image of a document by inserting a tag in the embedded code signal such as a background tint or halftone watermark signal (page 7, paragraph [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Perry with Hirai to include decorate the specified region by half-tone dot meshing for the purpose of detecting alteration of the document.

37. As to dependent claims 20 and 68, Hirai, however, does not explicitly disclose wherein said modifying step erases the retouched part added to said document by painting out said retouched part with a specified color.

In the same field of endeavor, Perry discloses embedding code signal to a digital image of a document by inserting a tag in the embedded code signal such as a background tint or halftone watermark signal (page 7, paragraph [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Perry with Hirai to include erases the retouched part added to said document by painting out said retouched part with a specified color for the purpose of detecting alteration of the document.

38. Claims 17, 22, 42, 65 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 above, and further in view of Foote et al. (Foote), US Patent Application Publication No. 2002/0172395.

39. As to dependent claims 17, 42 and 65, Hirai, however, does not explicitly disclose wherein said retouched-part information includes a compressed image or reduced image of said document.

Foote discloses watermark an original data file using dimensional compression and expansion (Abstract). Foote further discloses embedding watermark data into a set of original data (paragraph [0081]). Foote further discloses the watermarked data file can be data compressed using any known or later developed data compression technique (paragraph [0083]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Foote with Hirai to include retouched-part information includes a compressed image or reduced image of said document for

the purpose of using less bandwidth for transmitting the watermarked data (retouched-part) using less space for storing the watermarked data.

40. As to dependent claims 22 and 70, Hirai discloses wherein said modifying step erases the retouched part added to said document by restoring an image of said document using said retouched-part information (paragraph [0036]).

41. Claims 18, 43 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai as applied to claims 1-2, 4, 9-11, 13-16, 19, 23-26, 29-32, 34, 37, 39-41, 44-46, 48-50, 52, 57-59, 61-64, 67, 71-74, 77-78 and 80 above, and further in view of Eguchi et al. (Eguchi), US Patent No. 7,411,702.

42. As to dependent claims 18, 43 and 66, Hirai, however, does not explicitly disclose wherein said retouched-part information includes coordinate data indicating a blank region of said document.

Eguchi discloses rectangles circumscribed to characters have been known as information that represents areas in which characters are to be recognized, and the circumscribed rectangles are used to represent respective character areas where digital watermark information is to be embedded (col. 6, lines 32-49). Eguchi further discloses detecting circumscribed rectangles by projecting pixel values of a document image (document areas) to the vertical coordinate axis, and finding blank portions (portions where characters in black are not present) for division on a row-by-row basis, and thus

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the rectangles circumscribed to the respective characters are obtained (col. 6, lines 32-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Eguchi with Hirai to include retouched-part information includes coordinate data indicating a blank region of said document. Including coordinate data in the retouched-part information would help embed and/or extract digital watermark in the document areas easier.

Allowable Subject Matter

43. Claims 21 and 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Doug Hutton, can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chau Nguyen/
Patent Examiner
Art Unit 2176